

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A tissue shaping instrument, comprising:

an elongated member having a distal effector portion and a proximal controlling portion, the elongated member being of sufficient length to enable an operator to access an interior of a hollow organ of a subject with the distal effector portion while the proximal controlling portion remains outside of the subject;

a first tissue engaging device disposed on the distal effector portion of the elongated member and operably connected to the proximal controlling portion, the first tissue engaging device being structured for releasably engaging at least the inner surface of the hollow organ; and

a second tissue engaging device also disposed on the distal effector portion of the elongated member and operably connected to the proximal controlling portion, the second tissue engaging device comprising opposed articulable arms with a tissue piercing element disposed at a distal end of at least one said arm, said articulable arms each configured for releasably engaging the interior of the hollow organ, with said second tissue engaging device being movable relative to the first tissue engaging device and hingedly pivotable relative to a long-axis of the elongated member,

wherein the proximal controlling portion of the elongated member is structured to actuate the tissue engaging devices.

2. (Original) The tissue shaping instrument of claim 1, wherein the instrument is an endoscopic instrument.

3. (Previously Presented) The tissue shaping instrument of claim 1, further comprising a tissue securing device disposed at the distal effector portion and operably connected to the proximal controlling portion.

4. (Original) The tissue shaping instrument of claim 3, wherein at least one tissue fixation device is configured to be loaded into the tissue securing device by a person using the device.

5. (Previously Presented) A tissue shaping instrument, comprising:

an elongated member having an inner tubular member and an outer tubular member concentrically disposed around the inner tubular member and a proximal controlling portion, the elongated member being of sufficient length to enable an operator to access an interior of a hollow organ of a subject with a distal portion of the elongated member while the proximal controlling portion remains outside of the subject;

a first tissue engaging device disposed on one of the inner and the outer tubular member and operably connected to the proximal controlling portion, the first tissue engaging device being structured for releasably engaging at least the inner surface of the hollow organ;

a second tissue engaging device disposed on one of the inner and the outer tubular member and operably connected to the proximal controlling portion, the second tissue engaging device comprising opposed articulable arms with a tissue piercing element disposed at a distal end of at least one said arm, said articulable arms each configured for

- (a) releasably engaging the interior of the hollow organ and for manipulating tissue thus engaged so as to reconfigure a portion of the interior of at least the interior of the hollow organ,
- (b) moving together relative to the first tissue engaging device, and
- (c) working cooperatively with a tissue securing device; and

a tissue securing device operably connected to the proximal controlling portion, wherein the tissue securing device is effective for fixing tissue of the hollow organ in a reconfigured state;

wherein the proximal controlling portion of the instrument is structured to actuate the tissue engaging devices and the tissue securing device.

6. (Original) The instrument of claim 5 wherein the instrument is an endoscopic instrument.
7. (Original) The tissue shaping instrument of claim 5 wherein either or both the first tissue engaging device and the second tissue engaging device comprises a jawed clamp.
8. (Original) The tissue shaping instrument of claim 5 wherein at least one of the first tissue engaging device and the second tissue engaging device comprises a corkscrew-like retractor.

9. (Original) The tissue shaping instrument of claim 5 wherein the tissue securing device comprises a stapler.
10. (Original) The tissue shaping instrument of claim 9 wherein the stapler comprises a one-sided stapler.
11. (Original) The tissue shaping instrument of claim 5 wherein the tissue securing device comprises a device structured for delivering at least one biocompatible tissue fixation device into a tissue.
12. (Original) The tissue shaping instrument of claim 11 wherein the at least one tissue fixation device is selected from the group consisting of a staple, a clip, a tack, a rivet, a two-part fastener, a helical fastener, a suture, and a T-bar suture.
13. (Original) The tissue shaping instrument of claim 11 wherein the at least one tissue fixation device is a staple.
14. (Original) The tissue shaping instrument of claim 11 wherein the at least one tissue fixation device is a two-part fastener.
15. (Original) The tissue shaping instrument of claim 11 wherein the at least one tissue fixation device is a suture.
16. (Original) The tissue shaping instrument of claim 11 wherein the at least one tissue fixation device is a T-bar suture.
17. (Original) The tissue shaping instrument of claim 5 wherein either or both the first tissue engaging device and the second tissue engaging device is non-piercing.

18. (Previously Presented) The tissue shaping instrument of claim 5 wherein at least part of the elongated member is flexible.

19. (Original) The tissue shaping instrument of claim 5 further comprising a viewing endoscope.

20. (Original) The tissue shaping instrument of claim 5 further comprising at least one working channel.

21. (Original) The tissue shaping instrument of claim 5 wherein the instrument is sterilized.

22. (Cancelled).

23. (Cancelled).

24. (Currently Amended) An apparatus, comprising:

means for transorally engaging a plurality of regions of stomach tissue with a plurality of members from within the stomach, at least one of the members configured to move toward another member to reconfigure tissue, wherein the plurality of members include a first member positioned on a central longitudinal axis and having a first securing part configured to engage a first stomach tissue section and a second member positioned on a central longitudinal axis and having a second securing part configured to engage a second stomach tissue section, the first and second members being positioned on the same central longitudinal axis, said means comprising an actuating mechanism operatively linking the first and second members to facilitate simultaneous independent movement of said members to draw together the first and second stomach tissue sections; and
means for pulling tissue located between the plurality of regions of tissue prior to engaging the plurality of regions of tissue.

25. (Previously Presented) The apparatus of claim 24 wherein the first securing part and the second securing part comprise tissue engaging means.
26. (Previously Presented) The apparatus of claim 25 wherein the tissue engaging means includes a corkscrew element.
27. (Previously Presented) The apparatus of claim 25 wherein the tissue engaging means includes a clamping device.
28. (Previously Presented) The apparatus of claim 25 wherein the tissue engaging means includes a suction device.
29. (Previously Presented) The apparatus of claim 25 wherein the tissue engaging means includes a grasping device.
30. (Original) The apparatus of claim 25 further comprising a means for securing the reconfigured tissue.
31. (Original) The apparatus of claim 30 wherein the securing means includes one or more of: a staple, a clip, a tack, a rivet, a two-part fastener, a helical fastener, a suture, a T-bar suture, and a tissue adhesive.
32. (Original) The apparatus of claim 30 wherein the securing means is biocompatible.
33. (Original) The apparatus of claim 30 wherein the securing means is non-resorbable.
34. (Currently Amended) Apparatus comprising: a substantially rigid elongated member configured for transoral placement in the stomach and having a distal region including first and second movable members configured to be moved toward one another to reconfigure stomach

tissue, the first movable member being positioned on a central longitudinal axis and the second movable member being positioned on a central longitudinal axis, the distal region being steerable as a unit, and means for deploying an implant from at least one of the members to secure the reconfigured tissue, wherein the first and second movable members are positioned on the same longitudinal central axis at different locations on a long axis of the elongated member.

35. (Original) The apparatus of claim 34 wherein the first movable member includes a first securing part configured to engage a first tissue section and the second movable member includes a second securing part configured to engage a second tissue section.

36. (Original) The apparatus of claim 34 wherein the elongated member includes a corkscrew element.

37. (Original) The apparatus of claim 34 wherein the elongated member includes a clamping device.

38. (Original) The apparatus of claim 34 wherein the elongated member includes a suction device.

39. (Original) The apparatus of claim 34 wherein the elongated member includes a grasping device.

40. (Original) The apparatus of claim 34 wherein the deploying means includes a distal end effector configured to contact the reconfigured stomach tissue.

41. (Original) The apparatus of claim 40 wherein the distal end effector includes at least one tissue fixation device.

42. (Original) The apparatus of claim 41 wherein the distal end effector is configured for

application of the at least one tissue fixation device into the reconfigured stomach tissue.

43. (Original) The apparatus of claim 40 further comprising a means for controlling the distal end effector.

44. (Original) The apparatus of claim 43 wherein the controlling means is disposed at a proximal end of the apparatus and is operatively connected to the distal end effector.

45. (Previously Presented) The tissue shaping instrument of claim 1, further comprising:
a first actuating mechanism cooperating with the first tissue engaging device, said first actuating mechanism being controllable by a user at said proximal controlling portion; and
a second actuating mechanism cooperating with the second tissue engaging device operatively linking the articulable arms to facilitate simultaneous dependent movement of said arms, said second tissue engaging device being controllable by a user at the proximal controlling portion.

46. (Previously Presented) The tissue shaping instrument of claim 45, wherein the first actuating mechanism comprises a control cable cooperating with a biasing member.

47. (Previously Presented) The tissue shaping instrument of claim 46, wherein the biasing member is a torsion spring.

48. (Previously Presented) The tissue shaping instrument of claim 45, wherein the second actuating mechanism comprises a biasing member acting between said articulable arms and a pair of control cables cooperating with said biasing member.

49. (Previously Presented) The tissue shaping instrument of claim 1, further comprising a tissue grasper disposed on a distal end of the articulable arm opposite said tissue piercing element.

50. (Previously Presented) The tissue shaping instrument of claim 1, further comprising a

suction device disposed on a distal end of the articulable arm opposite said tissue piercing element.

51. (Previously Presented) The tissue shaping instrument of claim 1, further comprising a tissue piercing element at the distal end of each said articulable arm.

52. (Previously Presented) The tissue shaping instrument of claim 51, wherein said tissue piercing elements comprise a coil with a sharp distal tip.

53. (Currently Amended) An apparatus, comprising:

a plurality of tissue engaging members having at least a first member positioned on a central longitudinal axis and having ~~with~~ a first securing part configured to engage a first stomach tissue section and at least a second member positioned on a central longitudinal axis and having ~~with~~ a second securing part configured to engage a second stomach tissue section, the first and second members being positioned on the same central longitudinal axis; and

an actuating mechanism operatively linking the first and second members to facilitate simultaneous independent movement of the members to draw together first and second stomach tissue sections,

wherein the apparatus is configured for transorally engaging a plurality of regions of stomach tissue with the plurality of members from within the stomach and wherein at least one of the members is configured to move toward another member to reconfigure tissue.